

**Lake Partner Program
Sampling Instructions -
Step by Step Guide**

2003 Report

Lake Partner Program Sampling Instructions - Step by Step Guide

Contacts are at the Dorset Environmental Science Centre
(which is part of EMRB):

2003

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Printed on recycled paper

ISBN

PIBS 4663e03



Ontario

LAKE PARTNER PROGRAM

Sample instructions

Thank you for participating in the Lake Partner Program. If you have not received your sampling kit, please call: 1-800-470-8322. This kit supplies you with the necessary tools to:

1. make Secchi disc observations (i.e. monitor water clarity). These observations are recorded at least once a month (twice a month is ideal) and,
2. collect water samples for total phosphorus analysis. The location of your lake determines how many water samples you will collect as follows:
 - **Lakes on the Canadian Shield** are sampled for total phosphorus **once** per year during spring turnover. A sample in May is preferred. Most volunteers sample before 24th May.
 - **Off-Shield lakes** are sampled monthly for total phosphorus May to October (6 samples). Each time you return a sample to Dorset we will send you another kit to use for the next month.

Secchi Disc Depths and Water Temperature

Ideally, Secchi disc readings (and surface temperatures if possible) are taken twice a month (May to Oct). New volunteers can follow the attached *Secchi Disc Instruction Sheet* to construct a Secchi disc. Record all the Secchi depths and temperatures on the Observations Sheet. This paper is waterproof and tear-proof (use a pencil). There are sampling instructions on the reverse side that can go with you in the boat. At the end of the season, return the sheet to the Dorset Environmental Science Centre, fax it to 705-766-2254 or email the information to lakepartner@ene.gov.on.ca.

Volunteers who previously returned data sheets for the Great Ontario Dip-In should note that the data relevant to the Dip-In will be automatically forwarded from the database - no extra work is required. This program requires only one reading close to the Canada Day weekend.

Water Sampling Instructions

Please read the following instructions completely.

Your kit equipment should include:

- 1 - 80 micron filter funnel (#1)
- 1 - sample collection bottle (#2)
- 1 - wide mouthed PET jar (#3)
- 2 - glass test tubes (#4)



Step 1

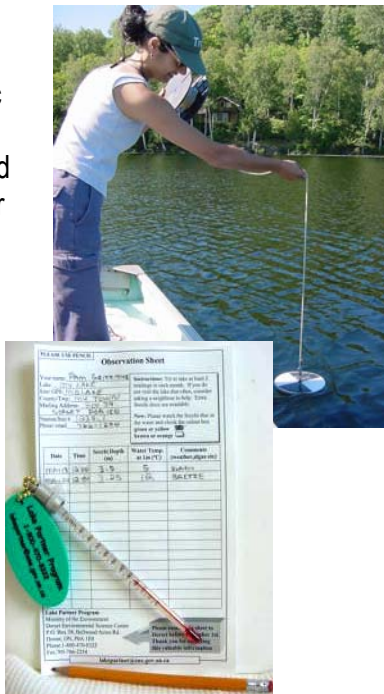
Prepare the collection bottle (#2) by attaching a suitable length of clean rope to neck ring. It will need to be a bit longer than the maximum Secchi depth for your lake. Duct tape the bottle to a suitable clean weight that is heavy enough to sink it. *Hammer shown.*



Step 2

See attached Secchi disc instruction Sheet to prepare a Secchi disc and learn how to make proper readings . Use your Secchi disc to measure the water clarity and record this depth (in metres) on the *Observations Sheet*.

If you have a thermometer, take the temperature at arm's length from the surface and record this on the *Observations Sheet*.



Step 3

Collect the water samples. First, rinse all bottles 3 times with unfiltered surface water. Collect the water sample by lowering the weighted bottle to the Secchi depth and back. In shallow lakes, lower the bottle no closer than **1 metre**

from the bottom. You will need to collect one sample to fill the PET jar and a second sample to fill the two test tubes.

Step 4

Pour the water sample through the filter (#1) into the wide-mouth (PET) jar (#3). The filter components are held together by friction. If it pops apart, simply reassemble the two parts with the filter material between the upper and lower sections.

Write the sample date on the lid or label of the jar.



Step 5

Repeat the sample process to collect water to fill the two test tubes (#4). Rinse the tubes twice with lake water and once with a bit of filtered water. Fill to **just above the etched line**.

Make sure the lids are screwed on snugly.



Step 6

Place the **filter, PET jar and test tubes** back into the box. Make sure the tubes are inserted back into the protective pipe wrap with the lids securely screwed on. Attach the postage label (found inside kit) to the outside of the box (cover up the old label). Seal the ends of the box with strong tape and return by mail to the Dorset Environmental Science Centre. Keep your observation sheet to make monthly Secchi readings and return it (email, phone, fax or post) to Dorset in the fall. *If you are sampling an off-shield

lake, another kit will come to you in the mail to collect samples the following month.*